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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/562,033  | 12/22/2005  | Robert L. Zeer       | 2369-001 US(Reg)    | 5427             |
| 27522 7590 10/30/2007<br>SEAN W. GOODWIN<br>222 PARKSIDE PLACE<br>602-12 AVENUE S.W.<br>CALGARY, AB T2R 1J3<br>CANADA |             |                      |                     |                  |
| EXAMINER<br>DEBOER, JOHN M  |             |                      |                     |                  |
| ART UNIT  |             | PAPER NUMBER         |                     |                  |
| 4112  |             |                      |                     |                  |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/562,033

**Applicant(s)**

ZEER, ROBERT L.

**Examiner**

John M. DeBoer

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 17, 19 and 20 is/are rejected.
- 7) ☐ Claim(s) 2-16, 18 and 21 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12/22/2005 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB08)  
Paper No(s)/Mail Date 06/01/2006
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### **Drawings**

1. The drawings are objected to because of a duplicate reference on Fig. 10a. Reference number 20 appears to point to two different portions of the figure. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### **Claim Objections**

2. Claim 1, 15, and 17 are objected to because of the following informalities:

a) the portion of claim 1 that reads: "and a fluid passage through the upper lateral displacement means and the reamer **for supplying drilling fluids from the drill string a downhole end** of the abrasive reaming tube, and wherein when the lower and upper lateral displacement means are in the non-displaced position the reamer and abrasive reaming tube are aligned with the wellbore;"

should be revised – it does not read clearly

b) claim 1 states "lower lateral displacement means 41 connected to a lower end of the reamer," whereas the specification on page 12 states "lower lateral displacement means 41 connected to a lower end 15 of the non-rotatable mandrel 12"

c) claim 15 has no period at the end of the claim

d) claim 21 refers to claim 17, and adds "the non-rotating mandrel," which lacks antecedent basis.

Appropriate correction is required.

3. Claims 2-16, 18, and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### **Double Patenting**

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory

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obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 1, 17, 19, and 20 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 2, 7, and 8 of U.S. Patent No. 5,103,921. Although the conflicting claims are not identical, they are not patentably distinct from each other because the '921 claims contain the limitations to provide for an obvious embodiment of applicant's current claim 1. Further, Examiner notes for method claims that if a prior art device or apparatus, in its normal and usual operation, would necessarily perform the method claimed, then the method claimed will be considered anticipated by the prior art device or apparatus. Examiner reasonably believes applicant's claims 17-21 are directed towards a method of using the apparatus in its normal and usual operation as claimed in 1-16.

Claim 1 is an independent claim with the following limitations:

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Apparatus for mounting on the end of a drill string having a rotatable distal end in a wellbore, the apparatus comprising: a reamer, at least a portion of which has a rotatable abrasive reaming tube thereon (see generally '921, claim 1)

a non-rotating lower lateral displacement means connected to a lower end of the reamer and operable to displace the reamer between a non-displaced position and a laterally displaced position (see generally '921, claim 1)

an upper lateral displacement means adapted for connection to the rotatable distal end of the drill string and connected to an upper end of the reamer for driveably rotating the abrasive reaming tube and for displacing the reamer between a non-displaced position and a laterally displaced position (see generally '921, claim 2)

and a fluid passage through the upper lateral displacement means and the reamer for supplying drilling fluids from the drill string a downhole end of the abrasive reaming tube (see generally '921, claims 7, 8, where it is an obvious embodiment to have a fluid passage)

and wherein when the lower and upper lateral displacement means are in the non-displaced position the reamer and abrasive reaming tube are aligned with the wellbore (see generally '921, claims 1 and 2, discussing first position versus second position)

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when the lower and upper lateral displacement means are actuated to the laterally displaced position the reamer and abrasive reaming tube are positioned substantially parallel to the wellbore for milling a window in a sidewall of the wellbore (see generally '921, claims 1 and 2, discussing first position versus second position)

Claim 17 is an independent method claim with the following limitations:

method for milling a window in a wellbore comprising: providing a tool having a non-rotating lower section and an upper section and a reamer connected therebetween (see generally '921, claim 1)

the tool being positionable in the wellbore and each of the upper and lower sections being actuatable between a non-displaced position aligned in the wellbore and a laterally displaced position parallel and offset from the wellbore (see generally '921, claim 1 and 2)

and positioning the tool in the wellbore (see generally '921, claim 1 and 2)

actuating at least the lower section to displace a lower end of the reamer (see generally '921, claim 1 and 2);

rotating an abrasive outer surface of the reamer to form a window in a sidewall of the wellbore (see generally '921, claim 1, 2, and 4);

manipulating the tool as necessary to lengthen the window and forming a parallel window substantially parallel to the wellbore (see generally '921, claim 1, 2, 4, and 5);

and actuating at upper section to displace an upper end of the reamer into the parallel window so that the reamer is positioned substantially parallel to the wellbore (see generally '921, claims 1, 2, 7, and 8).

Claim 19 depends upon rejected claim 17, with the additional limitation:  
manipulating step further comprises lowering the tool for elongating the substantially parallel window (see generally '921, claims 1, 2, 4, 5, 7, and 8).

Claim 20 depends upon rejected claim 17, with the additional limitation:  
manipulating step further comprises lifting and lowering the tool uphole and downhole for backreaming and elongating the substantially parallel window (see generally '921, claims 1, 2, 4, 5, 7, and 8).

### **Claim Rejections - 35 USC § 102**

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.



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7. Claims 1, 17, 19, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Zeer, et al., US Patent 5,103,921 ("921").

Claim 1 is an independent claim with the following limitations:

Apparatus for mounting on the end of a drill string having a rotatable distal end in a wellbore, the apparatus comprising: a reamer, at least a portion of which has a rotatable abrasive reaming tube thereon ('921, core barrel 26 on end of drill string 18 in bore hole 10 has an abrading means 36 on at least part of it (the barrel) [see col. 2, 27-55]);

a non-rotating lower lateral displacement means connected to a lower end of the reamer and operable to displace the reamer between a non-displaced position and a laterally displaced position ([applicant describes the non-rotating lower lateral displacement means as a "displacement crank," see pg. 5, 16-19] deflection crank 34 rotates, but the motion displacing core barrel 26 is equivalently lateral and linear; fig. 1, & col. 3 24-69);

an upper lateral displacement means adapted for connection to the rotatable distal end of the drill string and connected to an upper end of the reamer for driveably rotating the abrasive reaming tube and for displacing the reamer between a non-displaced position and a laterally displaced position (universal joint 22 allows [core barrel 26] to be rotated...and to operate out of original axial position; col. 2, 31-44);

and a fluid passage through the upper lateral displacement means and the reamer for supplying drilling fluids from the drill string a downhole end of the abrasive reaming tube

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(open bottom 92 (i.e., end of bit 28) and passageway 44 capable of receiving drilling fluids; fig. 2 [also, drilling fluid is directed through the drill string to the bit 28; col. 3, 58-60]),

and wherein when the lower and upper lateral displacement means are in the non-displaced position the reamer and abrasive reaming tube are aligned with the wellbore (device 20 is aligned with the tube string when in the non-displaced position; fig. 2),

when the lower and upper lateral displacement means are actuated to the laterally displaced position the reamer and abrasive reaming tube are positioned substantially parallel to the wellbore for milling a window in a sidewall of the wellbore (when displaced, core barrel 26 is capable of being substantially parallel to the wellbore; fig. 1).

Examiner notes for method claims that if a prior art device or apparatus, in its normal and usual operation, would necessarily perform the method claimed, then the method claimed will be considered anticipated by the prior art device or apparatus. Examiner reasonably believes applicant's claims 17-21 are directed towards a method of using the apparatus in its normal and usual operation as claimed in 1-16.

Claim 17 is an independent method claim with the following limitations:

method for milling a window in a wellbore comprising: providing a tool having a non-rotating lower section and an upper section and a reamer connected therebetween

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('921, core barrel 26 on end of drill string 18 in bore hole 10 has an abrading means 36 on at least part of it (the barrel) [col. 2, 27-55]; NOTE: applicant describes the non-rotating lower lateral displacement means as a "displacement crank" [pg. 5, lines 16-19 of applicant's specification]; deflection crank 34 rotates, but the motion displacing core barrel 26 is equivalently lateral and linear [see fig. 1, & col. 3 24-69]; universal joint 22 allows [core barrel 26] to be rotated...and to operate out of original axial position [col. 2, 31-44]),

the tool being positionable in the wellbore and each of the upper and lower sections being actuatable between a non-displaced position aligned in the wellbore and a laterally displaced position parallel and offset from the wellbore (device 20 is aligned with the tube string when in the non-displaced position; fig. 2),

and positioning the tool in the wellbore (col. 1, 32-55);

actuating at least the lower section to displace a lower end of the reamer (col. 3, 57-69, & col. 4, 1-34),

rotating an abrasive outer surface of the reamer to form a window in a sidewall of the wellbore (col. 3, 57-69, & col. 4, 1-34);

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manipulating the tool as necessary to lengthen the window and forming a parallel window substantially parallel to the wellbore (col. 3, 57-69, & col. 4, 1-34);

and actuating at upper section to displace an upper end of the reamer into the parallel window so that the reamer is positioned substantially parallel to the wellbore (universal joint 22 allows [core barrel 26] to be rotated...and to operate out of original axial position, which the position is capable of being equivalent to substantially parallel to the wellbore; col. 2, 31-44).

Claim 19 depends upon rejected claim 17 above with the additional limitation: claim 17 wherein the tool manipulating step further comprises lowering the tool for elongating the substantially parallel window (col. 3, 57-69, & col. 4, 1-34).

Claim 20 depends upon rejected claim 17 above with the additional limitation: claim 17 wherein the tool manipulating step further comprises lifting and lowering the tool uphole and downhole for backreaming and elongating the substantially parallel window (col. 3, 57-69, & col. 4, 1-34).

8. The prior art made of record and **not** relied upon are considered pertinent to applicant's disclosure.

1) Head, et al., PG Publication 2006/0231258

2) Struthers, et al., US Patent 5,568,838

- 3) Ohmer, US Patent 6,474,415
- 4) Eaton, et al., US Patent 5,163,522
- 5) Skaalure, US Patent 5,188,190
- 6) Braden, et al., US Patent 5,211,715
- 7) Ford, et al., US Patent 6,066,844
- 8) Zeer, UK Application GB 2.234.278 A

The references mentioned above are deemed useful for background information as applicable to understanding applicant's invention (NOTE: not all sources may be prior art as per 102, nor would they be used for such a purpose).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John M. DeBoer whose telephone number is (571) 270-3652. The examiner can normally be reached on M-Thur, alt. Friday (7:30 - 5:00 est).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bruce can be reached on 571-272-2487. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

John M. DeBoer  
Examiner  
Art Unit 4112

jmd

/David V Bruce/  
Supervisory Patent Examiner, Art Unit 4112